

University of Groningen

Fitness to drive measures for chronic user of ICADTS category III drugs; 'do not drive'. Advise them do drive if they are fit for it.

Dijksterhuis, Chris; Veldstra, Janet; de Waard, Dick; Brookhuis, Karel

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Early version, also known as pre-print

Publication date:

2014

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Dijksterhuis, C., Veldstra, J., de Waard, D., & Brookhuis, K. (2014). *Fitness to drive measures for chronic user of ICADTS category III drugs; 'do not drive'. Advise them do drive if they are fit for it.* Poster session presented at 2014 Human Factors and Ergonomics Society Europe Chapter Annual Meeting, Lisbon, Portugal.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Fitness to drive measures for chronic users of ICADTS category III drugs; 'do not drive'.

Advise them to drive if they are fit for it.

Chris Dijksterhuis, Janet Veldstra, Dick de Waard, & Karel Brookhuis

Goal

Assess fitness to drive from:

- A highway drive
- Neurological test battery
- Simulator drive

(develop criteria / find correlates)

Design

Three medicine groups:

| Type \ using (months) | 6-36 | >36 |
|-----------------------|-------|------|
| Antidepressants | n=20 | n=20 |
| Anxiolytics | n=20 | n=20 |
| Hypnotics | n=20 | n=20 |
| Control Group | n=120 | |

Background

The International Council on Alcohol, Drugs, and Traffic Safety (ICADTS) classifies the impairing properties of **medicinal drugs** on driving performance into one of three categories:

- (I) presumed safe
- (II) moderate adverse effects
- (III) **potentially dangerous**

This classification is largely based on pharmacological studies of brief drug use on healthy subjects. Not enough is known about the impairing effects on **chronic drug users** who **may develop a tolerance** for side effects and thus could be fit to drive.

Methods

Highway drive
(driving 100 km at 95 km/h)
Standard Deviation Lateral Position
Standard Deviation Speed

Neurological test battery

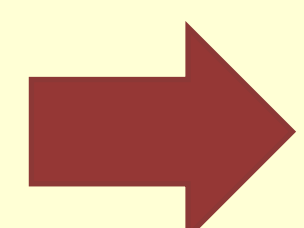
- Trailmaking A and B
- Digit Symbol Substitution Test
- Adaptive Tachistoscopic Traffic Perception Test
- Reaction Test
- Determination Test
- Hazard perception Test
- Psychomotor Vigilance Task

Simulator drives

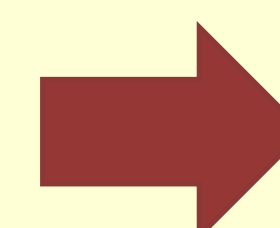
1. Vigilance (lateral control)
2. Motorway merging (critical conflict)
3. Intersections (e.g., critical conflicts)

Summary. Should ICADTSIII users drive?

Current situation:
NO



Investigation
Driving in real traffic
Neurological tests
Simulator drive



Future situation:
individualised advise

